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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/155,796	11/30/98	YAMAGUCHI T	925-142P

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EXAMINER	
BUI,K	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/155,796	Yamaguchi
Examiner	**Group Art Unit**
"Krista" Kieu-Oanh Bui	2611

☒ Responsive to communication(s) filed on *Dec 4, 2000*

☒ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *1-25* is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☒ Claim(s) *19 and 20* is/are allowed.

☒ Claim(s) *1-18 and 21-25* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Objections

1. Claim 22 is objected to because of the following informalities: claim 22 is appeared twice on page 9 of amendment dated 12/04/2000. There's a total of 26 claims instead of 25 as noted in the amendment. Appropriate correction is required.

Allowable Subject Matter

2. Claims 19-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims (2nd notice).

3. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to suggest a video data distribution method as cited in claim 16 further comprising the steps of "wherein in the transmission level determining step, when the video data playback device plays back the video data with fast speed, the transmission level is determined in such a manner that the video data with a part of frame data thinned from plural frame data included in the video data is extracted, and when fast playback is not performed, the transmission level is determined in such a manner that the frame data of the video data is not thinned" and "wherein in the data extracting step, when the video data playback device quickly forwards and plays back the video data including plural frame data and voice data, said voice data

is deleted from the video data and the number of frame data corresponding to the transmission level is extracted to generate video data, and in the transmitting step, the video data generated by said data extracting step is transmitted" as cited in claims 19-20.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

5. Claims 1-2, 4-9, 11-18 and 21-26 (see the Claim Objection above) are rejected under 35 U.S.C. 103(a) as being unpatentable over Katseff et al. (U.S. Patent No. 5,822,537) in view of Shimoda (U.S. Patent No. 5,440,345).

Regarding claims 1 and 11, Katseff et al (or "Katseff" hereinafter) disclose a video data distribution device (Fig. 1) which comprises: a load processing device for processing a load condition of a network or the video data distribution device, i.e., utilizing a prefetch subroutine for retrieving load condition of network such as frames worth of audio and video from a file server to store in an audio and video buffer (col. 8/lines 56-67) and a subroutine for monitoring its load statuses (Fig. 10 and col. 15/lines 15-37).

Although Katseff includes the step of decompressing JPEG data to users (col. 9/lines 9-22), Katseff does not clearly mention to include "a data extractor for extracting an amount of frame data from video data comprising frame data, the amount of extracted frame data corresponding to a load condition processed by said processing device; and a transmitter for transmitting the frame data extracted by the data extractor"; however, the technique of using a data extractor for extracting an amount of frame data from video data comprising frame data is known in the art. In fact, Shimoda does the same technique of using a data extractor for extracting data length information (Shimoda, Fig. 25b/item 217 and col. 27/lines 19-28) in Shimoda's high efficient encoding/decoding system in video recording or playbacking on TV broadcasting and on recording media. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Katseff's system with Shimoda's data extractor in order to extract an amount of frame data from video data comprising frame data corresponding to a load condition processed by the processing device as desired. The motivation for doing this is to offer necessary means for extracting an amount of frame data receiving from the previous step for video data processing purposes. As for claim 11, in further view of claim 1, Katseff discloses to include "a load measuring device for measuring a load condition of a network or the video data distribution system", i.e., a data buffer monitoring subroutine in the processing unit continuously monitors the load of the network based on predefined threshold level (Katseff, Fig. 10 and col. 15/line 15-col. 16/line 57). Furthermore, Shimoda suggests to include "a video data distribution device comprising a data extractor" as cited (as discussed in claim 1 above) and

"a video data playback device for receiving the frame data transmitted from the transmitter of said video data distribution device via said network and playing back the received frame data" (Shimoda, col. 13/lines 55-64).

As for claim 2, in view of claim 1 above, the step of "wherein based on the load condition processed by said processing device, the data extractor extracts all of the frame data comprised within the video data when the load is low, and extracts a part of the frame data comprised within the video data when the load is high" is suggested by Katseff as Katseff discloses that when the load is extreme, the system will transmit only audio data, without any video data, to the user at the workstation (Katseff, col. 2/lines 56-64) which is clearly an indication that part of the frame data, i.e., using JPEG format with video frames (col. 9/lines 1-22) is transmitted only, not all of the frame data.

As for claim 4, in further view of claim 1 above, the step of "wherein the video data comprises intra-frame compressed frame data and inter-frame compressed frame data, the data extractor extracts the video data with inter-frame compressed frame data deleted therefrom from the video data having intra-frame compressed frame data and inter-frame compressed frame data based on load condition processed by the load processing device, and the transmitter transmits the video data extracted by the data extractor" is taught by Shimoda as Shimoda reveals that intra-frame compressed frame data and inter-frame compressed data differ each other in their encoded amount (Shimoda, col. 5/lines 20-24) and the inter-frame compressed frame data is the video data encoded using the intra-frame compressed frame I or the inter-frame compressed frame P (see

Shimoda, Figs. 1, 4 & 7-8 and col. 1/lines 32-36), and Shimoda uses a Intra-frame/Inter-frame Identifier 63 with the help of motion detector 26 and Inter-frame predictor 68 (Shimoda, Fig. 17) to extract the inter-frame compressed data P out from the GOP layer comprising I and P frames as illustrated in Figure 7.

As for claim 5, Shimoda teach "wherein the video data is MPEG data" (Shimoda, Fig. 7 and col. 5/line 60-col. 6/line 45).

As for claim 6, similar to claim 4 above, the step of "wherein the MPEG data comprises I pictures and P pictures, and the data extractor generates the MPEG data with P picture deleted therefrom in accordance with the load condition processed by the load processing device" is taught by Shimoda as Shimoda reveals that intra-frame compressed frame data and inter-frame compressed data differ each other in their encoded amount (col. 5/lines 20-24) and the inter-frame compressed frame data P is the video data encoded using the intra-frame compressed frame I or the inter-frame compressed frame P (Figs. 1, 4 & 7-8 and col. 1/lines 32-36), and Shimoda uses a Intra-frame/Inter-frame Identifier 63 with the help of motion detector 26 and Inter-frame predictor 68 (Fig. 17) to extract the inter-frame compressed data P out from the GOP layer comprising I and P frames as illustrated in Figure 7.

As for claims 7 and 8, the steps of "wherein the MPEG data comprises I pictures and B pictures, and the data extractor generates MPEG data with B picture deleted therefrom from MPEG data having I picture and B picture in accordance with the load condition processed by the load processing device" and "wherein the MPEG data comprises I pictures, P pictures, and B

pictures, and the data extractor generates MPEG data with P picture and B picture deleted therefrom from MPEG data having I picture, P picture and B picture in accordance with the load condition processed by the load processing device" are suggested by Shimoda as Shimoda reveals that only intra-frame compressed data I is left for extracting at the data extractor 217 (Shimoda, Fig. 25b and col. 27/lines 19-22) from the previous I & B or I & B & P picture of the GOP layer as illustrated in Figure 7.

Concerning claim 9, Shimoda further suggests to include "wherein the MPEG data comprises a plurality of I pictures, and the data extractor extracts plural I pictures from MPEG data having plural I pictures at intervals corresponding to the load condition processed by the load processing device"as Shimoda includes an intra-frame data length 56 for reconstructing the data format of plurality of I pictures (intra-frame meaning for I pictures), for example, of a two-hour program with a signal rate of 200 Mbps (Shimoda, col. 12/lines 34-52 and col. 13/lines 55-64).

As for claim 12, Shimoda reveals "wherein the load measuring unit measures a load of a processor for controlling operation of the video data playback device" (Fig. 18/item 83 with adjustment bit and col. 12/lines 57-68).

Regarding claim 13, the combination of Katseff and Shimoda does reveal that the system can be connected to a VCR and recording media (etc.) in the network (Katseff, Fig. 3/items 325 & 330 and Shimoda, col. 25/lines 25-30) which suggests more than one VCR can be utilized same as the step of "wherein a plurality of video data playback devices are connected to the network" and the step of "frame data transmitted from the transmitter of the video data distribution device

via said network is received by each of said plurality of video data playback devices" are suggested by Katseff as Katseff reveals that his system is a multimedia information retrieval system which connected to either a LAN or WAN (col. 3/lines 58-67) that allows to be accessed and shared by a plurality of users as well as with a plurality of file servers for distributing multimedia files (col. 4/line 65-col. 5/line 5).

As for claim 14, the step of "wherein the video data playback device transmits a plurality of data transfer requests in which each data transfer request designates a data amount to the video data distribution device, and upon receiving said data transfer requests, the video data distribution device transmits frame data based on the data amount designated by each data transfer request" is suggested by Shimoda as Shimoda discloses the technique of detecting the vector motion, monitoring the data amount, adjusting the rate and also adjusting the amount of output frame data using the motion detector, the variable length encoder, the rate controller as well as the data length counter in handling same task as claimed (Shimoda, col. 16/lines 21-62 and col. 12/lines 57-68).

Concerning claim 15, Shimoda further suggests "wherein the video data playback device transmits a data transfer request in which video data is designated, and upon receiving said data transfer request, the video data distribution device transmits a plurality of packets having a portion of the frame data of said video data at predetermined intervals" as Shimoda reveals in the trick play operation as the playback mode signal is instructed from the playback device to the

video distribution device and the distribution device transmits a portion of frame data of requested video data to the playback device (Shimoda, col. 27/lines 19-41).

Regarding claim 16, in view of claim 1 above, the combination of Katseff and Shimoda teaches a video data distribution method (Katseff, Figs 1 & 3) which comprises: transmission level determining step of determining a transmission level in accordance with a load of a video data distribution system (Katseff, Fig. 10 and col. 15/lines 1-65; and Shimoda, Fig. 8/items 55); a data extracting step of extracting an amount of frame data from video data comprising frame data corresponding to the transmission level determined by said transmission level determining step (Shimoda, Fig. 25b/item 217 and col. 27/lines 19-28); and a transmitting step of transmitting the frame data extracted by said data extracting step, said extracting step and said transmitting step being performed within a video data distribution device (Shimoda, col. 30/lines 54-56).

As for claims 17 and 18, these claims are rejected in the scope of claims 12 and 16 for claim 17 and claim 11 for claim 18 as already discussed above.

Regarding claims 21-26 (with claim 22 appeared twice), Katseff discloses "wherein the load processing device processes a load condition of a network by measuring a degree of congestion of network" (Katseff, Network congestion, col. 14/line 55-col. 16/line 57); and further steps including "which is transmitted from a video playback device", "the data extractor extracts a reduced number of frames of the frame data comprised within the video data", about "P pictures and B pictures", "the load measuring unit is contained within the video distribution device or with the video playback device" and "the video playback device transmits the measurement result of

the load measuring unit to the video data distribution device" are rejected in the scope of claims 1-2, 4-9 and 11-16 as already disclosed in details above.

6. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katseff (U.S. Patent No. 5,822,537) in view of Shimoda (U.S. Patent No. 5,440,345) and Takahashi (U.S. Patent No. 5,739,865).

Regarding claim 3, Katseff and Shimoda do not disclose to include the thinning process for frame data such that "wherein the data extractor extracts an amount of frame data by thinning frame data from the frame data comprised within the video data based the load condition processed by the load processing device" as claimed; however, Takahashi does teach a same technique of thinning out frame data in Takahashi's image processing system (Fig. 14 and col. 10/lines 30-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Katseff and Shimoda's combination system with a known technique of thinning out frame data in video or image processing system in order to automatically adjust frame data corresponding to its load condition as obtained in the previous process of the load processing. The motivation for doing this is to manipulate frame data as much as possible.

As for claim 10, in further view of claim 3, the combination of Katseff and Shimoda reveals to further comprises an encoder (Shimoda, Fig. 2) for encoding image signals from a video camera in real time, i.e., capturing a meeting or presentations by using a camera in real time

(Katseff, Fig. 3/item 330 and col. 6/lines 35-44) and generating video data having plural frame data (Shimoda, Figs. 4, 7, 15-16); and a buffer for temporarily storing the video data generated by the encoder (Shimoda, Fig. 5/item 32), wherein by thinning frame data from the frame data comprised within the video data stored in said buffer, the data extractor extracts an amount of frame data from said video data based on the load condition processed by the load processing device (see Examiner's discussion in claim 3 above).

Response to Arguments

7. Applicant's arguments filed on 12/4/2000 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both references of Katseff and Shimoda in the same field of video and audio processing, Katseff discloses the technique of detecting the network congestion by monitoring buffers' threshold based on the load condition and by suggesting to reduce the video transmittal rate then reducing the audio playback rate. In the same scope to Katseff, one of ordinary skill in

the art would realize a similar technique by either reducing or compressing video data for better handling and processing, and the high efficient encoding/decoding technique has been known for years ahead of Katseff (Shimoda's art filed in 1993) for compressing frame data within the video frame data, and it is available to public since 1995. Therefore, a data extractor of Shimuda for handling compressed data, for example, is not novel in the art at the time (for this application filed in 02/1997), and the combination of the two are perfectly proper and valid.

Applicant further asserts that "Katseff merely discloses the measurement of a load on the playback device, not a load on a network or video distribution device 10" which is incorrect. Since Katseff reveals that this technique oversees the operation of the whole network, in other word, to prevent the network congestion (as clearly revealed in col. 2/lines 45-64 and col. 14/line 55 to col. 16/line 57), with an adaptive control algorithm in dynamically varying the rates, either to increase or to decrease the amount of data being transmitted over the network (col.15/lines 1-8). This is clearly the suggestion of measuring or monitoring a load on a network or a video distribution not on a playback device as noted by the Applicant.

Therefore, the Examiner disagrees with the Applicant's argument and stands with the teachings of Katseff, Shimoda and Takahashi as discussed in the previous and this Office Action.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-6306 or (703) 308-6296, (for formal communications intended for entry)

Or:

(703) 308-5399, (for informal or draft communications, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krista Kieu-Oanh Bui whose telephone number is (703) 305-0095. The examiner can normally be reached on Monday- Friday from 9:00 AM to 6:00 PM, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Krista Bui
Art Unit 2611
February 13, 2001

ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600